Microtek
ScanMaker 4
User's Manual

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Federal Communications Commission (FCC) Statement

This equipment (Trade name: ScanMaker 4, Model name: MRS-1200TP) has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient/relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: A shielded interface cable with ferrite cord installed on scanner connector end must be used with this equipment.

CAUTION

Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

English

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Introduction

An image scanner is a device that captures and converts illustrations, graphics, photographs, or text into electronic files that can be edited or enhanced and then incorporated in printed documents or multimedia presentations.

The single-pass, 36-bit, high-resolution ScanMaker 4 has been specifically designed and engineered for the discriminating scanner user, who demands rich, detailed images suitable for any preprocess or multimedia need.

The ScanMaker 4 color flatbed scanner scans reflective originals, but also features internal media trays for scanning positive or negative film in a variety of industry-standard formats.

The ScanMaker 4 includes 36-bit throughput capability for delivering images with more image data than 30- or 24-bit scanner are capable of capturing, superior optics and hardware components, as well as Microtek ScanWizard scanner controller software.

Basic Requirements

For the PC:

- Pentium, or compatibles
- Microsoft Windows 95/98 or NT
- CD-ROM drive (internal or external)
- 16MB RAM
- At least 100MB available hard disk space
- Super VGA Color display with 256 colors or better

For the Macintosh:

- Apple Power Mac or compatibles
- System 7.5 or higher
- CD-ROM drive (internal or external)
- 16MB RAM
- At least 100MB available hard disk space
- Super VGA Color display with 256 colors or better

Before You Begin

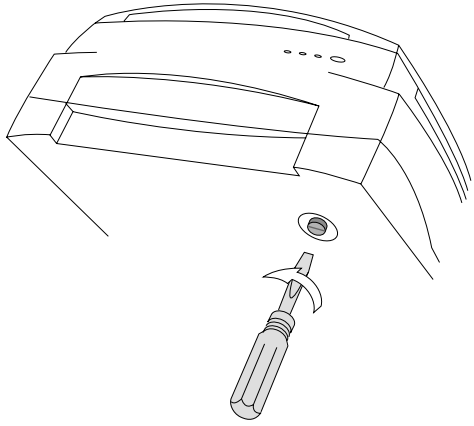
1. Unpacking your scanner and checking components

Open your scanner package and check the components as stated in your components list (see page 20). If any component is missing, call Microtek Sales.

2. Unlocking the scanner

Your scanner has a locking screw to protect the scanner carriage mechanism during shipping. Before you operate the scanner, you need to disengage the locking screw.

Using a coin or a screwdriver, turn the locking screw counterclockwise to unlock it. When successfully unlocked, the screw will push out a little, nearly even with the bottom of the scanner.



Turn locking screw counterclockwise to unlock the scanner.

Installation under Windows 95/98

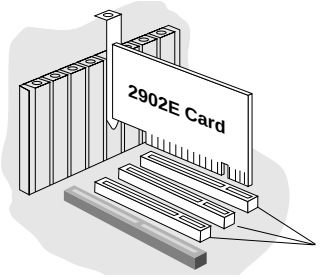
To install under Windows 95/98, take the steps below:

1. Install the interface card in your computer
2. Check the interface card status
3. Install software
4. Reset the scanner's SCSI ID if necessary
5. Connect the scanner and computer
6. Check the scanner status
7. Test your scanner

1. Installing the interface card

Before installing the interface card supplied with your scanner, make sure you turn off your computer and peripherals. Then follow the steps below:

1. Shut down your computer and unplug the power cord. Next, remove the cover from your computer.
2. Look for an available PCI card slot (typically white or ivory) in your computer, remove the slot cover, and insert the Adaptec AVA-2902E into the slot. Push the card in to make sure it's seated all the way in the slot.



PCI expansion slots (typically white or ivory)

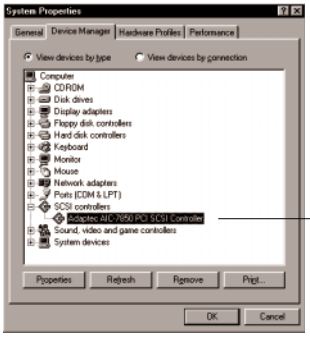
This is important, as an improper card connection will make you unable to use your scanner, and you will then have to remove the computer case and restart the card all over again.

3. Replace the cover of the computer, then plug the power cord back in.

2. Checking interface card status

When you run Windows 95/98, the Adaptec AVA-2902E SCSI adapter is detected and the driver is automatically installed. Make your Windows 95/98 CD-ROM ready for use. Some computers may prompt you to load Windows 95/98 software during your installing AVA-2902E driver. Follow steps below to check.

1. Turn on your computer, click Start, Settings, and select Control Panel.
2. Double-click on the System icon in Control Panel and select Device Manager from the top.
3. Double-click on "SCSI controllers" to display the screen below.



The result of the check is displayed here.

The message "Adaptec AIC-7850 PCI SCSI Controller" displays indicates that the driver is installed and the AVA-2902E interface card works properly.

If a conflict exists, either of the following will occur:

- a yellow exclamation mark appears next to the phrase:

  Adaptec AIC-7850 PCI SCSI Controller

- or -

- nothing is listed under "SCSI Controllers". In either case, refer to the *Troubleshooting* section.

3. Installing software

Insert the Microtek CD-ROM into your CD-ROM drive. The *Microtek Scanner Software* installer should come up automatically, and list the software available for you. Click on each software program in the order they appear on your screen to install all of the components.

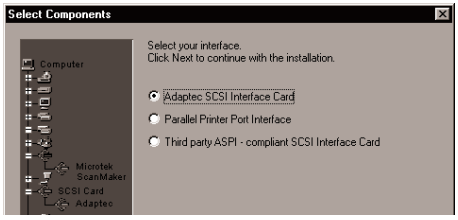
Note: If the Microtek Scanner Software is not automatically displayed on the screen, *click* Start, *select* Run *and type d:\cdsetup (where d: is your CD-ROM drive).*

Step 1 Install Microtek ScanWizard

ScanWizard is a Twain driver used for the scanner to work with various applications. ScanWizard cannot be used by itself and requires another program in order to work.

1. Click Microtek ScanWizard, then follow screen instructions to start installation.

2 During installation, choose "Adaptec SCSI Interface Card" option as your interface type.



3. When installation is complete, the Microtek ScanWizard for Windows group appears as a folder in the Programs menu.

Step 2 Install software application

Install each software application by clicking on the individual program options.

Step 3 Install Microtek DCR

DCR is Microtek's proprietary color calibration technology for use with Microtek color scanners. With DCR installed, your scanner is capable of capturing extremely accurate color images.

Step 4 Install documentation reader

Click Adobe Acrobat Reader, then follow screen instructions until installation is complete. Acrobat Reader is necessary for reading the manuals on your CD-ROM.

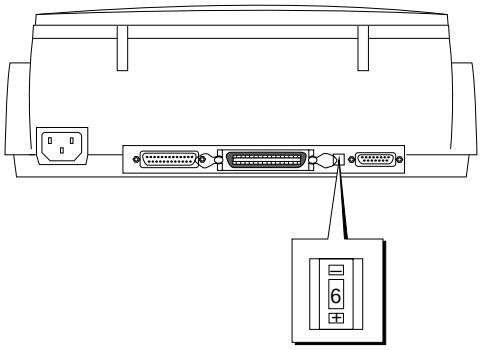
4. Resetting the scanner's SCSI ID if necessary

This procedure is provided as a reference. You may or may not need to change the SCSI ID on your scanner.

A SCSI ID is a number assigned to each SCSI device in your daisy chain to differentiate the devices from one another. The SCSI ID for your Microtek scanner is factory-set to 6.

You won't need to change the SCSI ID on your scanner unless another SCSI device on your system (such as external hard drive, additional scanner, etc.) is using the same number.

Locate the SCSI ID switch, use a small pin (or a small screwdriver) to press either of the small black openings located above or below the SCSI ID. Pressing the upper opening "-" decreases the SCSI ID number; pressing the lower opening "+" increases the number.

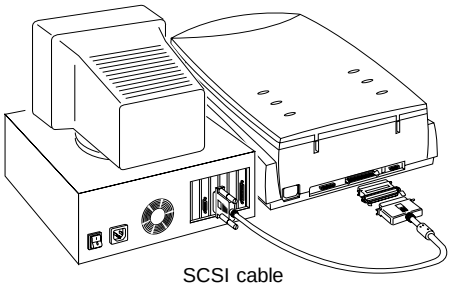


Valid SCSI ID numbers are 0 to 6. Do not use SCSI ID #7, which is used to carry a self-test for the scanner and make the carriage move back and forth. SCSI ID #8 and #9 are also not used.

5. Connecting the scanner

Before connecting the scanner to your computer, make sure the scanner driver (ScanWizard) is installed. Take the following steps to connect.

1. Shut down your computer.
2. Connect the card and the scanner; using the SCSI cable that provided in the scanner package. Make sure your scanner and computer are turned off when you perform the connection.



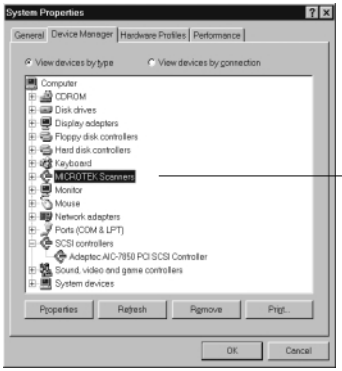
SCSI cable

3. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source at wall outlet.
4. Turn on your scanner and wait for all the light on the front panel to stop blinking.
5. Then power up your computer.

6. Checking scanner status

When running Windows, ALWAYS turn on the scanner before the computer. If you don't, Windows will not be able to “see” your scanner.

1. Click Start, Settings, and select Control Panel.
2. Double-click on the System icon in Control Panel and select Device Manager from the top.
3. The screen that appears displays the message “Microtek Scanners”. Double-click it, the scanner model you connected shows under it.

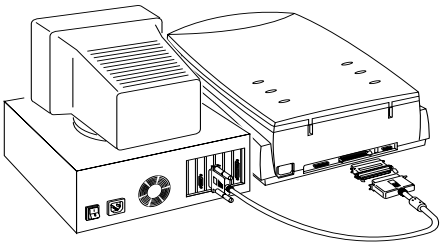


The message “Microtek Scanners” displays, indicating the scanner is installed.

If your system can't find your scanner, maybe SCSI conflict happens between your scanner and other SCSI device. To resolve the conflict, refer to *Troubleshooting for Windows 95/98* on page 6.

Terminator

You will definitely need a terminator if you are hooking up your computer on a daisy chain with two or more SCSI devices through the SCSI interface card.

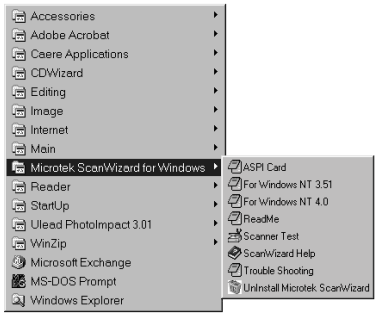


Take note that in a daisy-chain connection, different drivers come into play and complicated configurations may result. If you are not familiar with the procedure for daisy chaining, consult a technician on how to do this. Microtek bears no responsibility for damages that may occur to peripherals due to inexperienced handling.

7. Testing your scanner

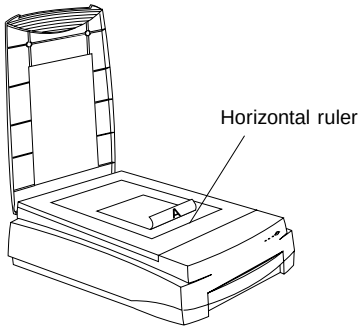
1. Restart Windows 95/98. Before you restart the computer, make sure your scanner is on and ready.

2. Click Start, Programs, Microtek ScanWizard for Windows, and then select Scanner Test.



3. When started up successfully, the screen below appears.

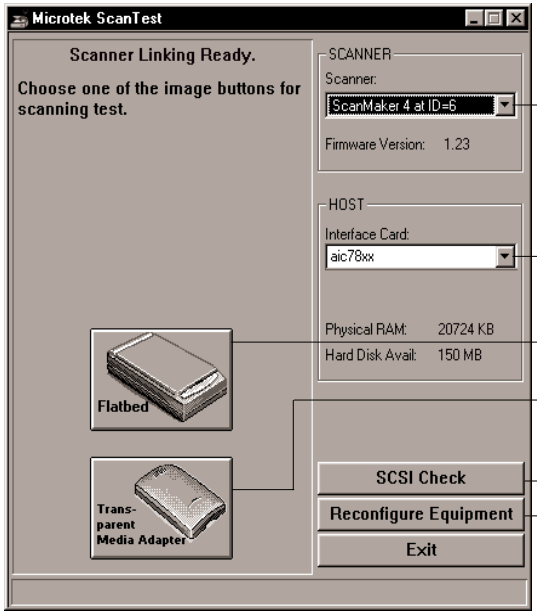
4. Place your document faced down on the scanner glass. Center the top of the document along the horizontal ruler on the scanner.



5. Click the **Flatbed** or the **TMA** button on the Microtek Scanner Test program screen. A preview of your image will be displayed in the Microtek ScanTest window. This indicates the Scanner Test was successful and the scanner is now ready to scan.

6. Close and exit Microtek ScanTest program.

For more details on how to operate your scanner with ScanWizard, refer to the file *Scanwiz.pdf* in the folder *Manuals* on the CD-ROM.



The Scanner Model shows the scanner connected to your computer along with the scanner's SCSI ID.

The “aic78xx” message indicates you are using Adaptec SCSI interface card.

The **Flatbed** button is used for previewing reflective material.

The **TMA** button is used for previewing transparent material.

The **SCSI Check** acts as a SCSI probe to verify the location of your scanner and the scanner ID.

The **Reconfigure Equipment** allows the system to update its own internal reference file and is useful when you have changed your setup or reconfigured your system.

Troubleshooting for Windows 95/98

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

Situation A Your interface card is not properly seated in the PCI card slot on your computer.

Situation B Your interface card conflicts with another device.

Situation C Windows 95/98 can not recognize your interface card.

Situation D If your interface card and scanner do not seem to be working properly.

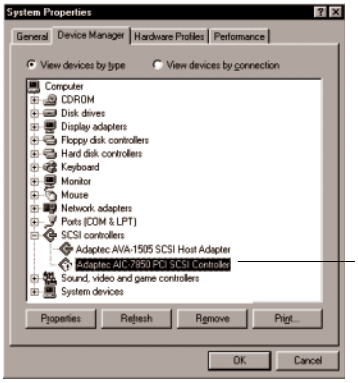
See details below for resolving the individual situations above.

Resolving situation A

Make sure the card is seated all the way in and secured into the PCI card slot. The PCI card slot normally is white or ivory.

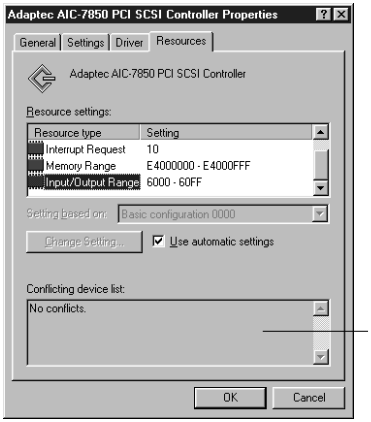
Resolving situation B

1. Click Start, Settings, and select Control Panel.
2. Double-click on the System icon in Control Panel and select Device Manager from the top.
3. Double-click on "SCSI controllers" to display the dialog box below.



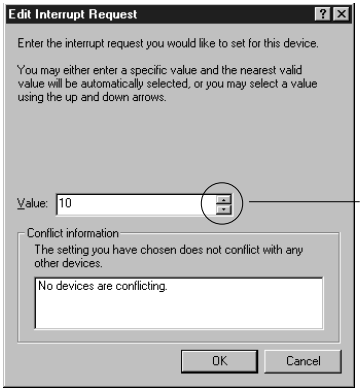
A yellow exclamation mark appears next to the message "Adaptec AIC-7850 PCI SCSI Controller".

4. Click on the Adaptec AIC-7850 PCI SCSI Controller option, and then click Properties.
5. Select Resources from the top. The dialog box gives you information about the Interrupt Request (IRQ) and Input/Output (I/O) address settings, including whether a conflict happens.
6. If a conflict exists in Input/Output option, then click Change Setting. Use the Up/Down arrow keys to select a different range.



If conflicts happen, the message will show here. Currently no conflicts happen.

7. Next, select the Interrupt/Request option, click Change Setting, and use the Up/Down arrow keys to select different IRQ number are taken, you need to contact your dealer or computer manufacturer to help on how to free up an IRQ in this range.

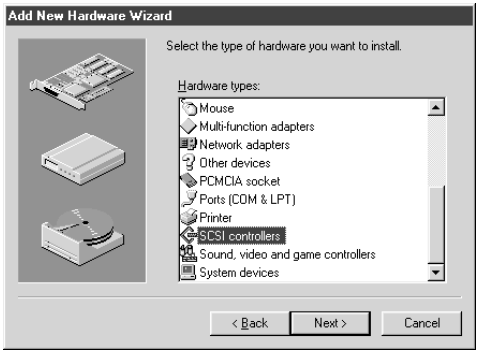

Edit Interrupt Request
Enter the interrupt request you would like to set for this device.
You may either enter a specific value and the nearest valid value will be automatically selected, or you may select a value using the up and down arrows.
Value:
10
Conflict information
The setting you have chosen does not conflict with any other devices.
No devices are conflicting.
OK
Cancel

Click the Up/Down arrow buttons to select IRQ.

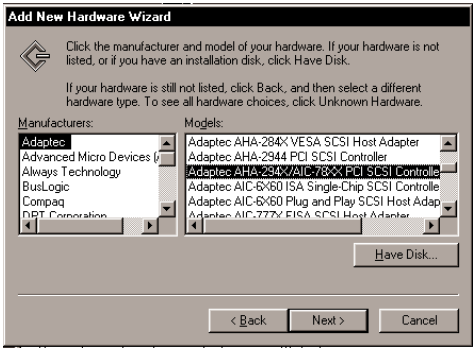
8. When all the settings are correct, click OK to save the modifications. The dialog box should now show the correct Interrupt Request and Input/Output address settings. If you're asked to shut down your computer, select No, then click Close. You will be asked whether you wish to restart your computer. Click Yes and restart your computer.

Resolving situation C

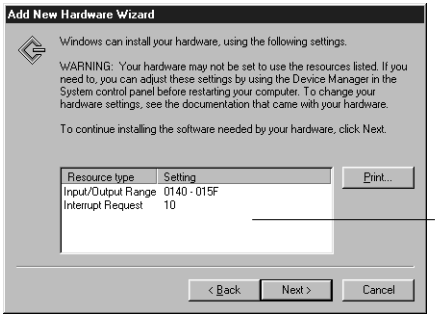
1. Click Start, Settings, and select Control Panel.
2. Double-click Add New Hardware.
3. Click Next and select No for "Do you want Windows to search for your new hardware?".
4. From the next menu, select SCSI controllers and click Next.



5. Select Adaptec on the left and "Adaptec AHA-294X/AIC-78XX PCI SCSI Controller" on the right. Click Next.


Add New Hardware Wizard
Click the manufacturer and model of your hardware. If your hardware is not listed, or if you have an installation disk, click Have Disk.
If your hardware is still not listed, click Back, and then select a different hardware type. To see all hardware choices, click Unknown Hardware.
Manufacturers:
Adaptec
Advanced Micro Devices
Always Technology
BusLogic
Compaq
Models:
Adaptec AHA-284X VESA SCSI Host Adapter
Adaptec AHA-2944 PCI SCSI Controller
Adaptec AHA-294X/AIC-78XX PCI SCSI Controlle
Adaptec AIC-6X60 ISA Single-Chip SCSI Controlle
Adaptec AIC-6X60 Plug and Play SCSI Host Adap
Have Disk...
< Back
Next >
Cancel

6. In the next menu, make a note of the Input/Output (I/O) range setting, as well as Interrupt Request (IRQ) number that Windows recommends you.


Add New Hardware Wizard
Windows can install your hardware, using the following settings.
WARNING: Your hardware may not be set to use the resources listed. If you need to, you can adjust these settings by using the Device Manager in the System control panel before restarting your computer. To change your hardware settings, see the documentation that came with your hardware.
To continue installing the software needed by your hardware, click Next.
Resource type
Setting
Input/Output Range
0140 - 015F
Interrupt Request
10
Print...
< Back
Next >
Cancel

Write this message down on a piece of paper for handy reference.

7. When the "Add New Hardware Wizard" dialog box appears, click Finish.
8. Continue until the installation is completed. Windows 95/98 will then ask if you want to shut down your computer. Select No.
9. Click Start, Settings, and select Control Panel.
10. Double-click on the System icon in Control Panel and select Device Manager from the top.
11. Double-click on "SCSI controllers" to check whether conflict happens.

    If conflict exists, following the steps of *Resolving Situation B* (see page 6) to reset it.

12. When all settings are correct, click OK to save the modifications. The dialog box should now show the correct Interrupt Request and Input/Output address settings. If you're asked to shut down your computer, select No, then click Close. You will be asked whether you wish to restart your computer. Click Yes and restart your computer.

Resolving situation D

See the section *Technical Tips* of *Installation Guide* that came with your AVA-2902E interface card.

Installation under Windows NT 4.0

If you are using Windows NT 3.51, refer to the document *For Windows NT 3.51 i*n the folder *Microtek ScanWizard for Windows* in the Programs menu. To install under Windows NT 4.0, take the steps below:

1. Reset the scanner's SCSI ID if necessary
2. Install the interface card in your computer
3. Check your Windows NT configuration
4. Install software
5. Connect the scanner and computer
6. Test your scanner

Part of the above procedures, especially to hardware installation should refer to the previous pages (Installation under Windows 95/98 section). Descriptions below follow installation sequence, but concentrated on Windows NT 4.0

1. Resetting the scanner's SCSI ID if necessary

You may or may not need to change the SCSI ID on your scanner. For more details on how to reset your scanner's SCSI ID, refer to Step 4 on page 3.

2. Installing the interface card

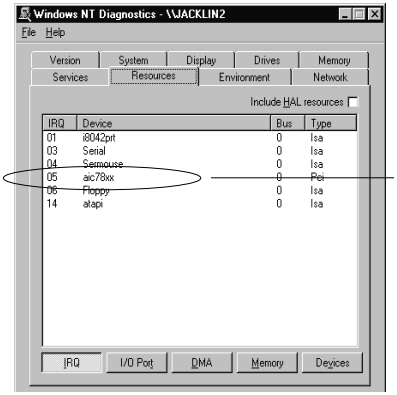
Before installing the interface card supplied with your scanner, make sure you have turned off your computer and peripherals. Then refer to Step 1 on page 2.

3. Checking your Windows NT configuration

When you run Windows NT, the Adaptec AVA-2902E SCSI Host Adapter is detected and the driver is automatically installed. Follow the steps below to check.

1. In Windows NT, click on the Start menu, go to Programs, Administrative Tools (Common), and select Windows NT Diagnostics. This will bring you to the following partial screen shot:

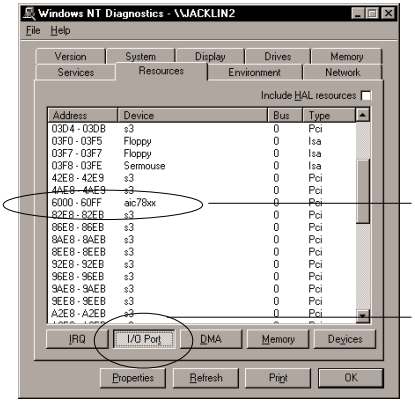
2. Click on the Resources tab to bring up the following screen:



The “aic78xx” message indicates you are using AVA-2902E SCSI interface card.

Number 05 appears, indicating IRQ 5 is in use.

At this screen you see a list of IRQs that are currently in use. By clicking on the I/O Port button at the bottom of the screen, you can see a list of I/O addresses that are in use.



This I/O address is used by AVA-2902E interface card.

I/O Port button.

From the two screens you have seen, the available IRQ and I/O address for use with the AVA-2902E interface card.

If the message “aic78xx” is not listed on the screen, indicating the SCSI driver is not installed; refer to the *Troubleshooting* section.

4. Installing software

1. Launch Windows NT 4.0, log in as Administrator.

2. Insert the Microtek CD-ROM into your CD-ROM drive. The *Microtek Scanner Software* installer should come up automatically, and list the available software for you. Click on each software program in the order they appear on your screen to install all software components.

   Note: If the Microtek Scanner Software Installer is not automatically displayed on the screen, click Start*, select* Run *and type d:\cdsetup (where d: is the drive letter of your CD-ROM).*

Step 1 Install Microtek ScanWizard

ScanWizard is a Twain driver used for the scanner to work with various applications. ScanWizard cannot be used by itself and requires another program in order to work.

1. Click Microtek ScanWizard, then follow screen instructions to start installation.

2. During installation, choose “Adaptec SCSI Interface Card” as your interface type.

3. Follow screen instructions to complete installation. When installation is complete, Microtek ScanWizard for Windows NT appears as a folder on the Programs menu.

Step 2 Install software application

Install each software application by clicking on the individual program options.

Step 3 Install Microtek DCR

DCR is Microtek’s proprietary color calibration technology for use with Microtek color scanners. With DCR installed, your scanner is capable of capturing extremely accurate color images.

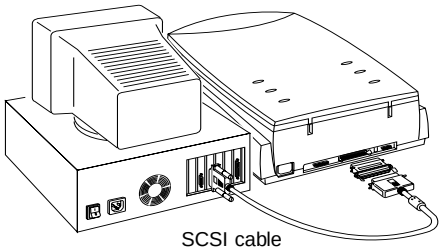
Step 4 Install documentation reader

Click Adobe Acrobat Reader, then follow screen instructions until installation is completed. Acrobat Reader is necessary for reading the manuals on your CD-ROM.

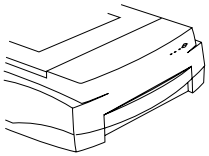
5. Connecting the scanner

Before connecting the scanner to your computer, make sure the scanner driver (ScanWizard) is installed. Take the following steps to connect.

1. Shut down your computer.
2. Connect the card and the scanner, using the SCSI cable that provided in the scanner package. Make sure your scanner and computer are turned off when you perform the connection.



3. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source at wall outlet.
4. Turn on your scanner and wait for all the light on the front panel to stop blinking.



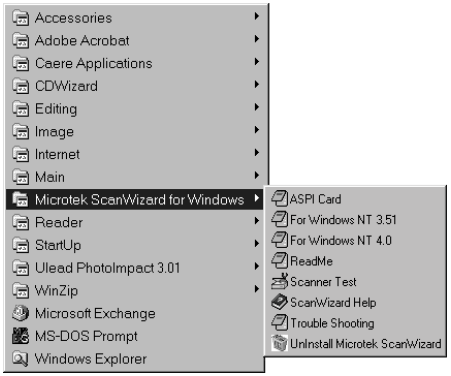
5. Then power up your computer.

6. Testing your scanner

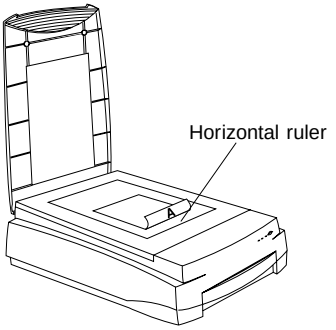
1. Restart Windows NT. Before you restart the computer , make sure your scanner is on and ready.

2. Click Start, Programs, Microtek ScanWizard for Windows NT, and then select Scanner Test.

3. When started up successfully, the screen below appears.



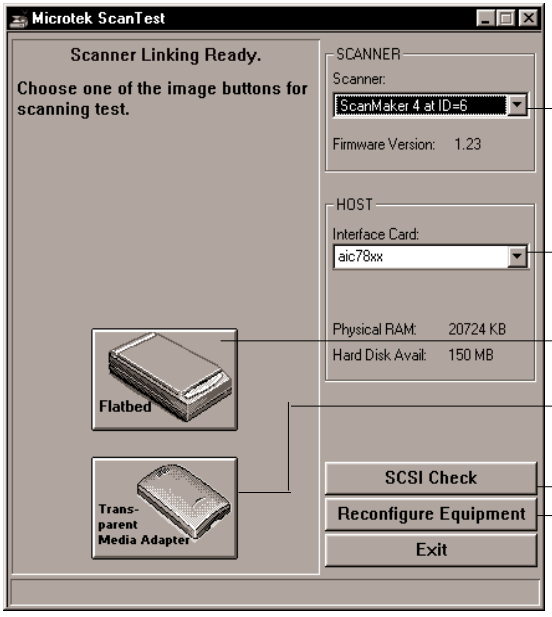
4. Place a reflective document with faced down on the scanner glass. Center the top of the document along the horizontal ruler on the scanner.



5. Click the Flatbed or TMA button on the Microtek Scanner Test program screen. A preview of your image will be displayed in the Microtek ScanTest window. This indicates the Scanner Test was successful and the scanner is now ready to be used.

6. Close and exit Microtek ScanTest program.

For more details on how to operate your scanner with ScanWizard, refer to the file *ScanWizard.pdf* in the folder *Manuals* on the CD-ROM.



The Scanner Model shows the scanner connected to your computer along with the scanner's SCSI ID.

The “aic78xx” message indicates you are using Adaptec SCSI interface card.

The **Flatbed** button is used for previewing reflective material.

The **TMA** button is used for previewing transparent material.

The **SCSI Check** acts as a SCSI probe to verify the location of your scanner and the scanner ID.

The **Reconfigure Equipment** allows the system to update its own internal reference file and is useful when you have changed your setup or reconfigured your system.

Troubleshooting for Windows NT 4.0

After installing the interface card in your computer and connecting the scanner, you may find yourself unable to use the scanner. This is usually due to any of the situations described below:

Situation A Your interface card is not properly seated in the PCI card slot on your computer.

Situation B The AVA-2902E SCSI driver is not properly installed in your computer.

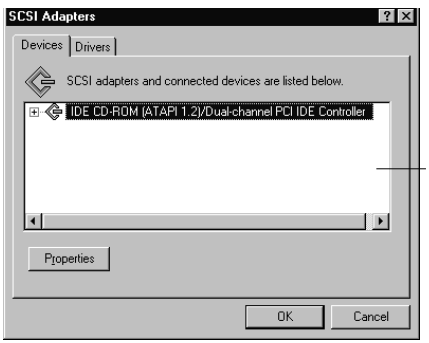
See details below for resolving the individual situations above.

Resolving situation A

Make sure the card is seated all the way in and secured into the PCI card slot.

Resolving situation B

1. Restart your computer. Start up Windows NT 4.0.
2. Click Start, Settings, and select Control Panel.
3. In the Control Panel window, find SCSI Adapters and double click it. A window like the following will appear.

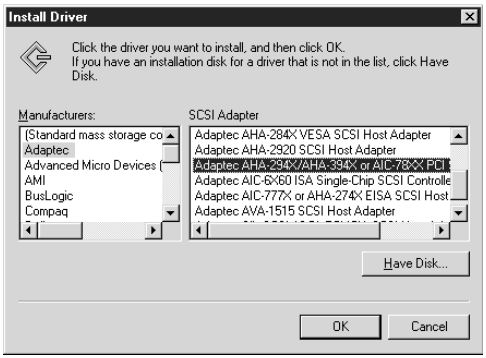


The Adaptec 2902E SCSI driver is not listed here.

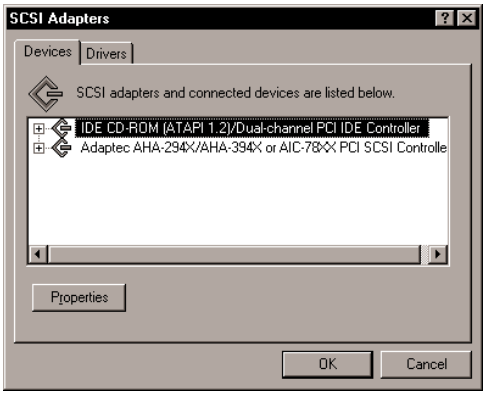
The Devices screen will list any SCSI controllers that may already have installed in your computer.

Note: Although IDE CD-ROM drives are not SCSI, because of the way the driver is implemented, Windows NT 4.0 will still list it on this screen.

4. Click on the Drivers tab, and click on the Add... button to select Adaptec on the left and "Adaptec AHA-294X/AHA-394X or AIC-78XX PCI SCSI Controller" on the right to install.


Install Driver
Click the driver you want to install, and then click OK.
If you have an installation disk for a driver that is not in the list, click Have Disk.
Manufacturers:
SCSI Adapter
(Standard mass storage co
Adaptec
Advanced Micro Devices (
AMI
BusLogic
Compaq
Adaptec AHA-284X VESA SCSI Host Adapter
Adaptec AHA-2920 SCSI Host Adapter
Adaptec AHA-294X/AHA-394X or AIC-78XX PCI
Adaptec AIC-6X60 ISA Single-Chip SCSI Controlle
Adaptec AIC-777X or AHA-274X EISA SCSI Host
Adaptec AVA-1515 SCSI Host Adapter
Have Disk...
OK
Cancel

5. Click OK to bring up the following screen.



The Adaptec card should now be listed as "Adaptec AHA-294X/AHA-394X or AIC-78XX PCI SCSI Controller", indicating the driver is installed.

6. Restart your computer. Start up Windows NT 4.0, follow the step 3 on page 8 to check Windows NT configuration.

Installation under Macintosh

To install under Macintosh, take the steps below:

1. Reset the scanner's SCSI ID if necessary
2. Connect the scanner and computer
3. Install software
4. Scan images

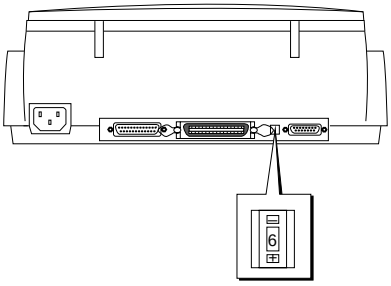
1. Resetting the scanner's SCSI ID if necessary

This procedure is provided as a reference. You may or may not need to change the SCSI ID on your scanner.

A SCSI ID is a number assigned to each SCSI device in your daisy chain to differentiate the devices from one another. The SCSI ID for your Microtek scanner is factory-set to 6.

You won't need to change the SCSI ID on your scanner unless another SCSI device on your system (such as external hard drive, additional scanner, etc.) is using the same number.

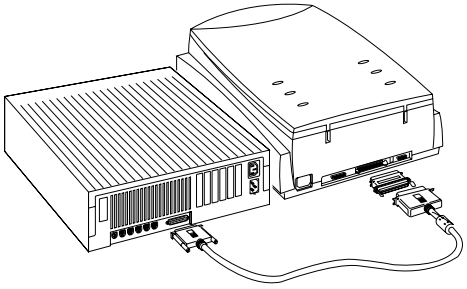
Locate the SCSI ID switch, use a small pin (or a small screwdriver) and press either of the small black openings located above or below the SCSI ID. Pressing the upper opening "-" decreases the SCSI ID number; pressing the lower opening "+" increases the number.



Valid SCSI ID numbers are 0 to 6. Do not use SCSI ID #7, which is used to carry a self-test for the scanner and make the carriage move back and forth. SCSI ID #8 and #9 are also not used.

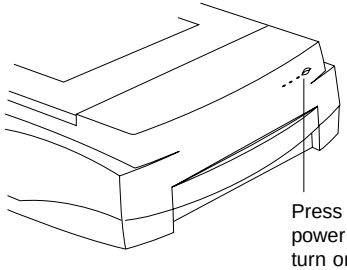
2. Connecting the scanner

1. Shut down your computer.
2. Connect the scanner to your computer, using the SCSI cable that provided in the scanner package. Make sure your scanner and computer are turned off when you perform the connection.



SCSI cable

3. Plug the power cord to the power connector at the back panel of the scanner, and plug the other end of the power cord to your AC power source at wall outlet.
4. Turn on your scanner and wait for all the LED indicators on the front panel stop blinking.



Press the power switch to turn on/off the scanner.

5. Then power up your Macintosh.

3. Installing software

Insert the Microtek CD-ROM into your CD-ROM drive, and double-click the CD-ROM when it appears on your Macintosh desktop. Follow the program in the order to install all of the components.

Step 1 Install software application

The bundled image editing, OCR, and other applications you receive depend on the scanner model you purchase. Open the application folder from the screen, then double-click on the appropriate installer icon to install the program.

Step 2 Install Microtek ScanWizard

Double-click on the *ScanWizard* folder to open it, then double-click on the *ScanWizard Installer icon* to install the program. Follow screen instructions until installation is completed.

Step 3 Install Adobe Acrobat Reader

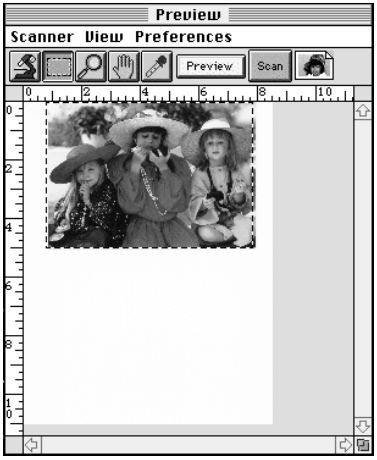
Double-click on the *Acrobat Reader* folder to open it, then double-click on the *Reader Install English icon* to install the program. Follow screen instructions until installation is complete.

4. Scanning images

1. Launch your image-editing software.

2. When ScanWizard starts up and appears on your screen, you will see the Settings and Preview windows. Place the image to be scanned on your scanner, then click on the *Preview* button.

3. ScanWizard now performs a quick preview of the image on your scanner. When the preview image appears, you can resize the floating dotted boarder around the image to determine the final size of the actual scan.



4. To scan the image, click on the *Scan* button. The image is then delivered to your image-editing program, where the image can be edited further or saved as a file.

Using the Manuals

Documentation for your scanner is provided on the Microtek CD-ROM. To read the manuals, you will be using the Adobe Acrobat Reader program, which is automatically launched when you open the file for the manuals.

To open the manuals: Go to *Manuals* folder, and locate the manual that you wish to view. Double-click on the file you want, and the manual is ready to be viewed or printed.

Operating the Scanner

In this section, you will learn the following topics.

- Performing the power-on self-test
- Positioning a document

  A: Placing reflective materials

  B: Scanning thick documents

  C: Placing transparent films

  1) Using the Universal Glass Film Holder

  2) Using the Main Holder

Performing the Power-on Test

The power-on test is a quick self-checking mechanism that the scanner carries out after you turn it on. This is what happens after the scanner is turned on:

1. POWER indicator (green LED) on the front panel of the scanner lights up.
2. The two READY indicators (orange LED) beside the POWER indicator will start flashing briefly. After a 30-second warm-up period, the scanner carries out a self-test, with the scanner carriage moving back and forth at half an inch distance. If no problems are detected, the READY indicators stay lit.

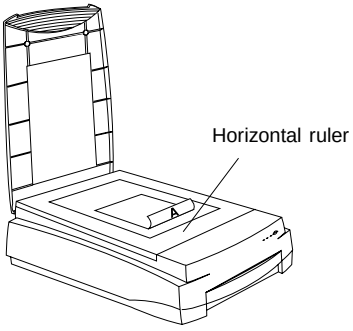
   ***Note**: If there are problems with the POWER and READY indicators, you may need service on your scanner. Call Technical Support for help, or outside the U.S and Canada, call your authorized Microtek dealer.*
3. The scanning lamp inside the scanner should be on too by this time. The lamp only goes off if the scanner is left on for more then 2 hours and is not used.

   Note: If the scanner lamp doesn't come on, starts to flicker, or gets dim, call for help.

Positioning a Document

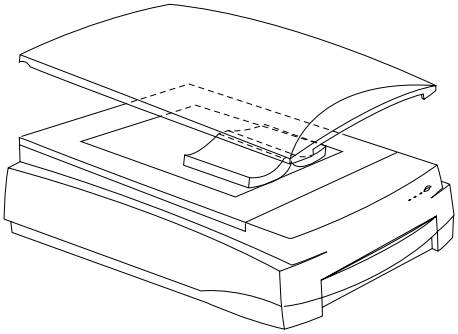
A. Placing Reflective Materials

1. Lift the document cover.
2. Place your document face down on the scanner glass. The center top edge of the document should be at the “0” position of the top ruler guide running along the top of the scanner.



B. Scanning Thick Documents

1. Lift the scanner cover high enough so that there is enough room to place the document on the scanner glass.

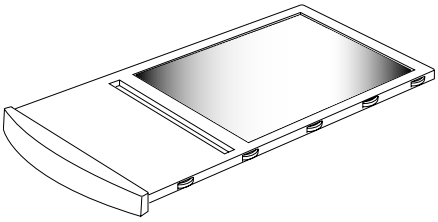


2. Lower the scanner cover. You are now ready to start scanning.

C. Placing transparent film

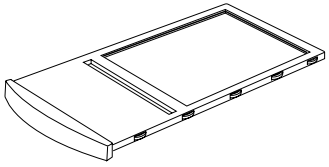
There are two ways to scan transparent film:

- By using the Universal Glass Film Holder for scanning non-standard-sized transparent film.

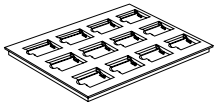


- By using the Main Holder together with the individual templates for scanning a particular type of standard-sized transparent film, such as 6 x 9 cm film, 4" x 5" film, individual 35mm slides, or 35mm filmstrips.

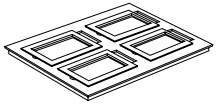
Main Holder



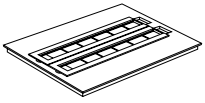
a) 35mm Batch Slide Holder



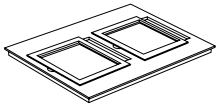
c) 6 x 9 cm Batch Film Holder



b) 35mm Filmstrip Holder

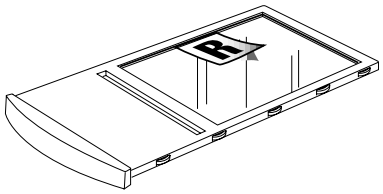


d) 4" x 5" Batch Film Holder

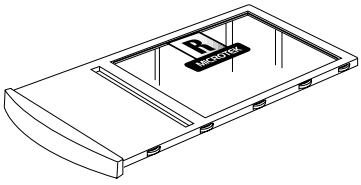


Using the Universal Glass Film Holder

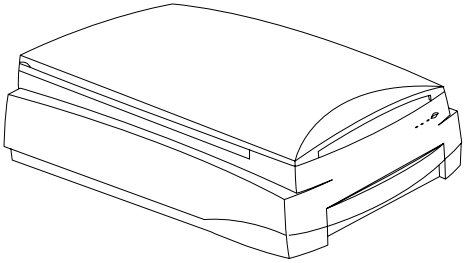
1. To scan non-standard-sized transparent film, place the film on top of the glass surface of the film holder against the glass.



2. Place the vinyl strip on the edges outside of your transparency.



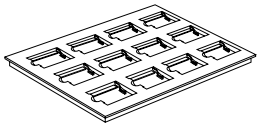
3. Place the Universal Glass Film Holder into the transparency tray of ScanMaker 4.



Using the Main Holder

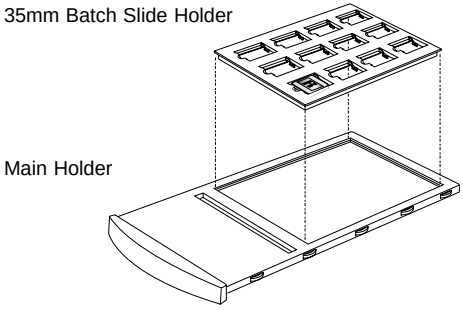
To scan standard-sized transparent film, use the Main Holder with the correct template that corresponds to the film type to be scanned.

a) Using the 35mm Batch Slide Holder

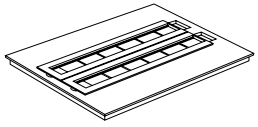


1. Insert the individual your 35mm slide to be scanned into the 35mm Batch Slide Holder.

2. Place the 35mm Batch Slide Holder in the Main Holder, then put this assembly in the transparency tray of the ScanMaker 4.



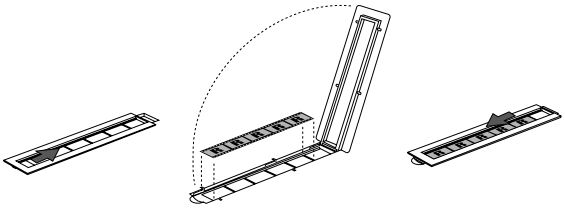
b) Using the 35mm Filmstrip Holder



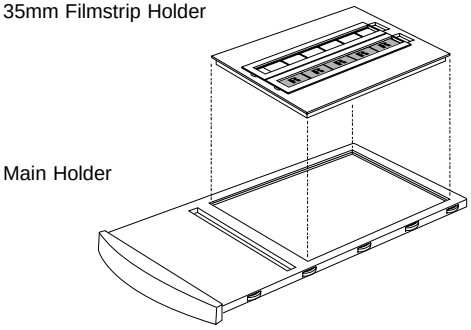
1. Push to open the 5-piece 35mm Filmstrip Holder.

2. Place the 35mm filmstrip to be scanned in the 35mm Filmstrip Holder.

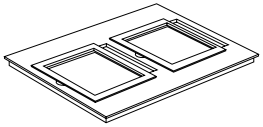
3. Pull to close the 5-piece 35mm Filmstrip Holder.



4. Place the 35mm Filmstrip Holder in the Main Holder, then put this assembly in the transparency tray of the ScanMaker 4.



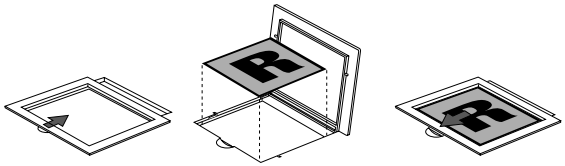
c) Using the 4" x 5" Batch Film Holder



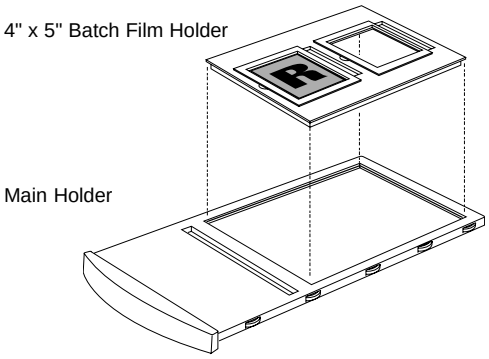
1. Push to open the 4" x 5" Batch Film Holder.

2. Place the films to be scanned in 4" x 5" Batch Film Holder.

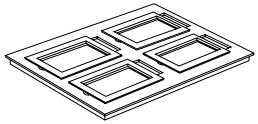
3. Pull to close the template.



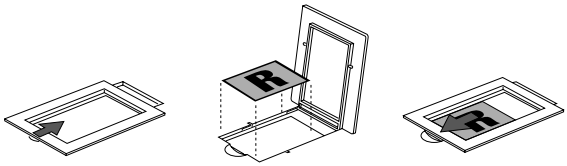
4. Place the 4" x 5" Batch Film Holder in the Main Holder, then put this assembly in the transparency tray of the ScanMaker 4.



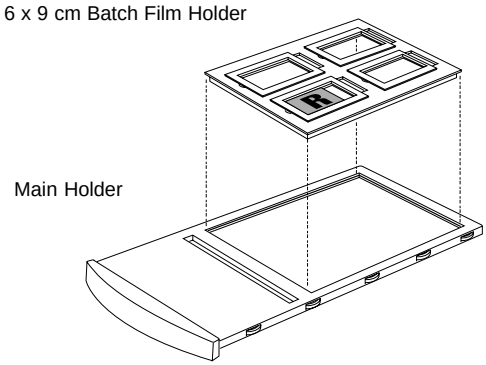
d) Using the 6 x 9 cm Batch Film Holder



1. Push to open the 6 x 9 cm Batch Film Holder.
2. Place the film to be scanned in the 6 x 9 cm Batch Film Holder.
3. Pull to close the template.



4. Place the 4" x 5" Batch Film Holder in the Main Holder, then put this assembly in the transparency tray of the ScanMaker 4.



Miscellaneous

This section contains information the following.

- Returning the scanner
- Locking the carriage
- Replacing the scanner lamp

Returning your scanner for repairs

Your ScanMaker flatbed color scanner has been built to exacting standards. Just like any piece of electrical equipment, however, your scanner or the delicate parts in it are subject to wear and tear and may malfunction for any number of reasons. If your scanner needs to be serviced or repaired, do the following:

For U.S. users:

- Call 310-297-5151 to obtain an RMA number from Microtek Technical Support.
- Lock the carriage (discussed in the next section).
- Pack the scanner in the original box without any software, and send the interface card and cables (only if applicable and asked to do so). If you have lost the original box, you will need to buy one from Microtek for a nominal fee.
- Send the scanner to Microtek Lab, Inc., 3715 Doolittle Drive, Redondo Beach, CA 90278, Attention RMA number <*put the RMA number here*>.

Important: Make sure the RMA number is on the outside address label and is visible. Packages without an RMA number or with the wrong RMA number on the outside of the box will be refused and returned to sender.

For Canadian users:

Call Microtek Technical Support. You will be given an RMA number and address to where your scanner can be sent for repair.

For users in parts other than the U.S. or Canada:

Call your authorized dealer for further instructions.

Locking the carriage

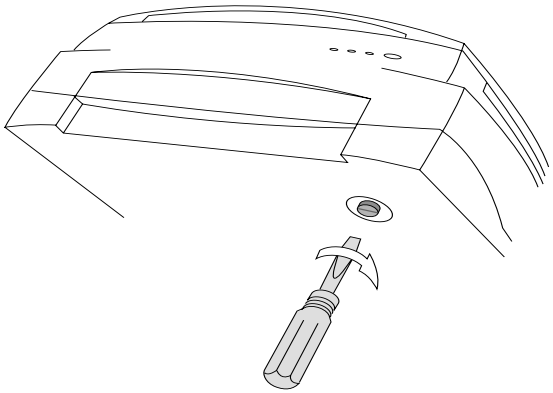
You need to lock the scanner carriage if you wish to ship back your scanner for any reason. The carriage must be locked to prevent the mechanism from moving during shipping and getting damaged in the process.

In addition, you need to pack the scanner in the original box in which it came. No scanner will be accepted in a packaging other than the authorized Microtek packing box. If your box is lost, call Microtek Sales to purchase a new one.

Important: Microtek will not be liable for scanners that are damaged during transit because the carriage had not been locked or was not packed in the original or authorized packaging.

Locking the ScanMaker 4 for shipping

1. Turn the scanner power off and then back on. The carriage will move forward a bit and then return to its standby position. When the carriage stops moving, turn off the scanner. Be sure that the carriage is in the standby position before you proceed to the next step to tighten the locking screw. Otherwise, the carriage won't be locked properly and can get damaged during shipping.



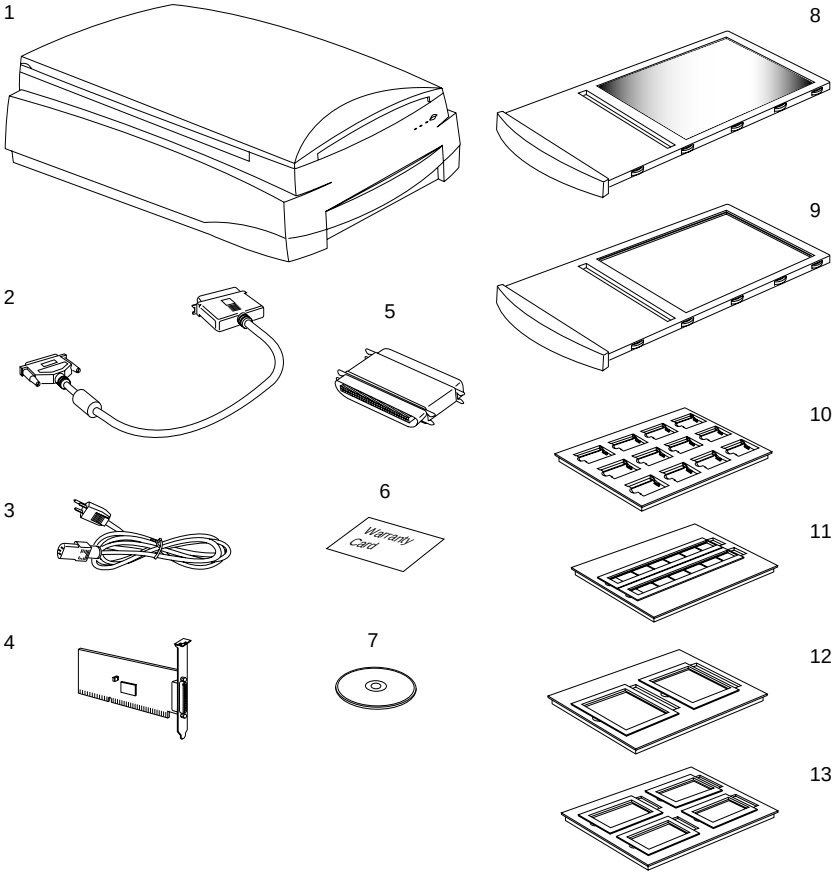
2. Tilt the scanner up, and locate the locking screw at the bottom of the scanner. To lock, turn the locking screw clockwise one-fourth turn while pushing it in simultaneously. The screw should stay in and not pop back out.

Lamp Replacement

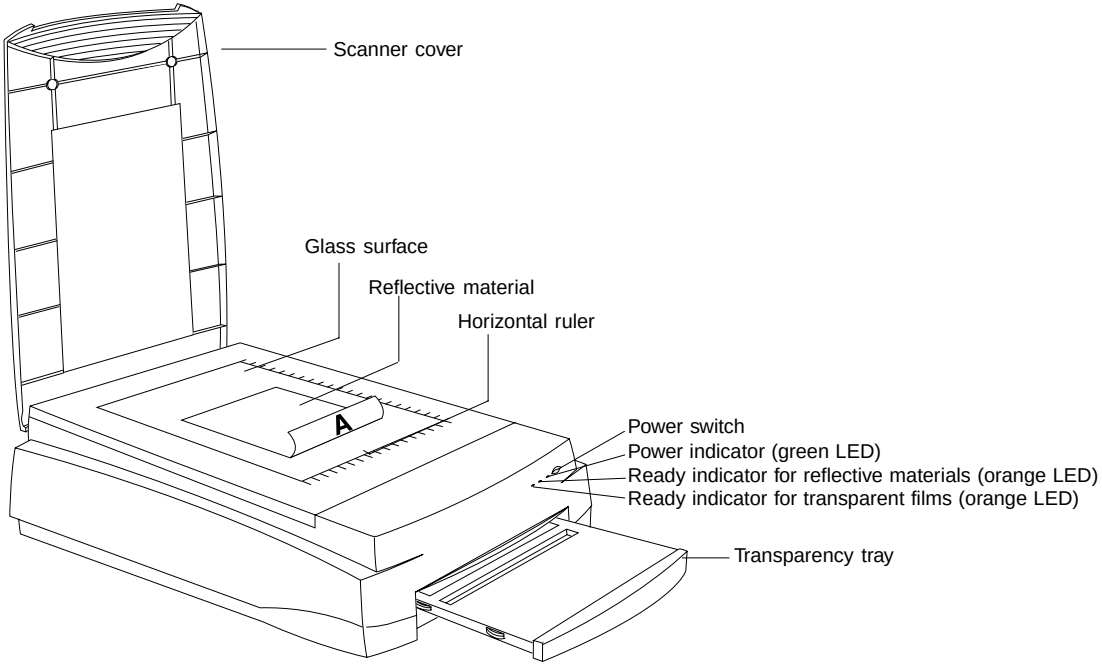
The lamp inside your scanner is not user serviceable and should be replaced if it does not come on or begins to flicker/dim after some time.

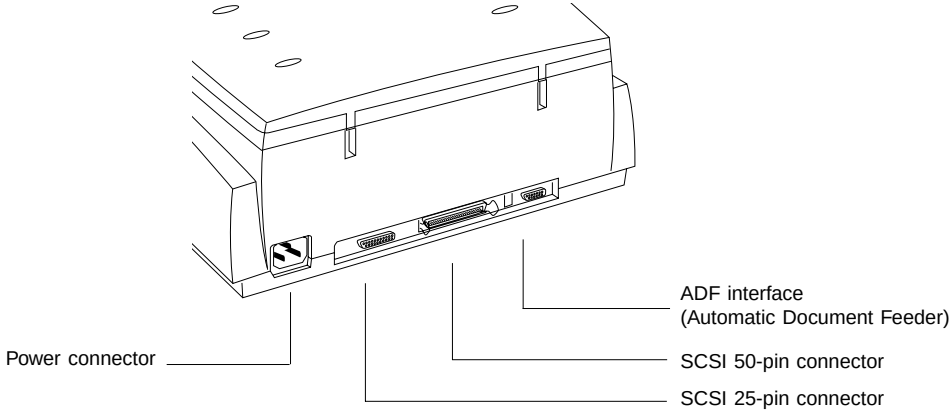
If the lamp requires replacement, call Microtek Technical Support to get a Repair Merchandise Authorization (RMA) number, and send the scanner in for lamp replacement. Outside the U.S. and Canadian, call your authorized Microtek dealer for lamp replacement.

Components



1. ScanMaker 4 Scanner
2. SCSI cable
3. Power Cable
4. Adaptec SCSI 2902E Interface Card (for PC model only)
5. SCSI Terminator (optional)
6. Warranty Card
7. Scanner Software CD-ROM
8. Universal Glass Film Holder
9. Main Holder
10. 35mm Batch Slide Holder
11. 35mm Filmstrip Holder
12. 4" x 5" Batch Film Holder
13. 6 x 9 cm Batch Film Holder


Scanner cover
Glass surface
Reflective material
Horizontal ruler
A
Power switch
Power indicator (green LED)
Ready indicator for reflective materials (orange LED)
Ready indicator for transparent films (orange LED)
Transparency tray


ADF interface
(Automatic Document Feeder)
Power connector
SCSI 50-pin connector
SCSI 25-pin connector

Specifications

Media	Reflective materials; color or black-and-white originals. Transmitted materials; parencies, film slides, and negative film strips.
Image Sensor	Trilinear color with cold cathode lamp.
Scanning Modes	Single scanning pass; 36-bit color; 12-bit grayscale; 1-bit black and white; 12 built-in halftones.
Scanning Area	Reflective; 8.5" x 14" (216mm x 355mm); Transparency; 8.0" x 10" (200mm x 254mm)
Optical Resolution	600 dpi (H) x 1200dpi (V)
Image Controls Brightness Settings	From -100% to 100% in 1% increments
Contrast Settings	From -100% to +100% in 1% increments
Exposure Time Selections	From 0% to +51% in 3% increments
Resolution Settings	1 dpi to 1200dpi in 1-dpi increments
Scanning Speed	5 milliseconds per line for line art, halftone, and gray; 6.5 milliseconds per line for color (speed measured at 600 dpi) Scanning times vary greatly, depending on image dimensions, resolution, memory capacity, disk access speed, and display time.
Acoustic Noise	Operating: ≤ 50 dB(A) in worst condition Standby: ≤ 40 dB(A)

Interface	SCSI interface
Dimensions (L x W x H)	566mm x 387mm x 158mm
Weight	Net 26.5lb. (11.6kg)
Voltage	AC 100V to 240V
Power Consumption	AC 100V to 240V: 1.2A Max. 47 to 63 Hz: 39 watts
Operating Environment	Temperature 10° to 40°C (50° to 104°F) Relative Humidity 20% to 85% RH
Storage Environment	Temperature -10° to 55°C (14° to 140°F)